



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2018–0094; 4500090023]

RIN 1018-BD08

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Yellow Lance

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the yellow lance (*Elliptio lanceolata*) under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 319 river miles (mi) (514 kilometers (km)) in North Carolina, Virginia, and Maryland fall within the boundaries of the proposed critical habitat designation. If we finalize this rule as proposed, it would extend the Act's protections to this species' critical habitat. We also announce the availability of a draft economic analysis of the proposed designation.

DATES: We will accept comments on the proposed rule and draft economic analysis that are received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION**

CONTACT by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: *Written comments:* You may submit comments on the proposed rule or draft economic analysis by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter FWS–R4–ES–2018–0094, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R4–ES–2018–0094; U.S. Fish and Wildlife Service, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

We request that you send comments only by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see **Information Requested**, below, for more information).

Document availability: The draft economic analysis is available at <http://www.fws.gov/southeast>, at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2018–0094, and at the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this proposed critical habitat designation and are

available at <https://www.fws.gov/southeast/>, at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2018–0094, and at the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we may develop for the critical habitat designation will also be available at the Service website and Field Office set out above, and may also be included in the preamble of this proposed rule and/or at <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Pete Benjamin, Field Supervisor, U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office, 551F Pylon Drive, Raleigh, NC 27606; telephone 919–856–4520. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. To the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species under the Act. Designations of critical habitat can only be completed by issuing a rule.

This rulemaking proposes to designate critical habitat for the yellow lance (*Elliptio lanceolata*). The yellow lance was listed as threatened under the Act on April 3, 2018 (83 FR 14189).

The basis for our action. Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat concurrent with listing to the extent prudent and determinable. Section 4(b)(2) of the Act states that the Secretary shall

designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat. The Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed if such areas are essential for the conservation of the species.

We prepared an economic analysis of the proposed designation of critical habitat.

In accordance with section 4(b)(2) of the Act, we prepared an analysis of the economic impacts of the proposed critical habitat designation. In this document, we announce the availability of the draft economic analysis for public review and comment.

Peer Review. In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270) and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought the expert opinions of appropriate specialists regarding the species status assessment report, which informed this proposed rule. The purpose of peer review is to ensure that our designation is based on scientifically sound data, assumptions, and analyses. The peer reviewers have expertise in mussel biology, habitat, and stressors (factors negatively affecting the species) to the species. We invite any additional comment from the peer reviewers during the public comment period for this proposed rule (see **DATES**, above).

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific data available and be as accurate and as effective as possible.

Therefore, we request comments or information from other concerned government agencies, Native American tribes, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 et seq.), including information to inform the following factors such that a designation of critical habitat may be determined to be not prudent:

(a) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(b) The present or threatened destruction, modification, or curtailment of a species’ habitat or range is not a threat to the species, or threats to the species’ habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(c) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(d) No areas meet the definition of critical habitat.

(2) Specific information on:

(a) The amount and distribution of yellow lance habitat;

(b) What areas, that were occupied at the time of listing and that contain the physical or biological features essential to the conservation of the species, should be included in the designation and why;

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change; and

(d) What areas not occupied at the time of listing are essential for the conservation of the species. We particularly seek comments regarding:

(i) Whether occupied areas are inadequate for the conservation of the species; and,

(ii) Specific information that supports the determination that unoccupied areas will, with reasonable certainty, contribute to the conservation of the species and, contain at least one physical or biological feature essential to the conservation of the species.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on the yellow lance and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the benefits of including or excluding areas that may be impacted.

(6) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts.

(7) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act.

(8) The likelihood of adverse social reactions to the designation of critical habitat, as discussed in the associated documents of the draft economic analysis, and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

(9) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include. We also invite additional comments from peer reviewers during the public comment period. All comments submitted electronically via <http://www.regulations.gov> will be presented on the website in their entirety as submitted. For comments submitted via hard copy, we will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. You may request at the top of your document that we withhold personal information such as your street

address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

On April 20, 2010, we were petitioned to list 404 aquatic species, including yellow lance, in the southeastern United States. In response to the petition, we completed a partial 90-day finding on September 27, 2011 (76 FR 59836), in which we announced our finding that the petition contained substantial information that listing may be warranted for the yellow lance. On April 5, 2017, we published a proposed rule to list the yellow lance as a threatened species (82 FR 16559). On April 3, 2018, we published the final rule to list the species as a threatened species (83 FR 14189).

Please refer to the April 5, 2017, proposed listing rule for a discussion of earlier Federal actions regarding the yellow lance.

Species Status Assessment

A species status assessment (SSA) team prepared an SSA report for the yellow lance. The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species. The

SSA report underwent independent peer review by scientists with expertise in mussel biology, habitat management, and stressors (factors negatively affecting the species) to the species. Along with other information submitted during the process of listing the species, the SSA report is the primary source of information for this proposed designation. The SSA report and other materials relating to this proposal can be found on the Service's Southeast Region website at <https://www.fws.gov/southeast/> and at <http://www.regulations.gov> under Docket No. FWS-R4-ES-2018-0094, and at the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Critical Habitat

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g.,

migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore

or recover the species; instead, they must implement “reasonable and prudent alternatives” to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act’s definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features that occur in specific occupied areas, we focus on the specific features that are essential to support the life-history needs of the species, including but not limited to, water characteristics, soil type, geological features, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

Under the second prong of the Act’s definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. When designating critical habitat, the Secretary will first evaluate areas occupied by the species. The Secretary will only consider unoccupied areas to be

essential where a critical habitat designation limited to geographical areas occupied by the species would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the SSA report, version 1.3 (Service 2018, entire), and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by

States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and its implementing regulations (50 CFR 424.12), require that the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species to the maximum extent prudent and determinable. The regulations at 50 CFR 424.12(a)(1) state that the Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(iv) No areas meet the definition of critical habitat; or

(v) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

We did not identify any of the factors above to apply to the yellow lance. Therefore, we find designation of critical habitat is prudent for the species.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the yellow lance is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Data sufficient to perform required analyses are lacking; or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of “critical habitat.” When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where this species is located. We find that this information is sufficient for us to conduct both the biological and economic analyses required for the critical habitat determination. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is now determinable for the yellow lance.

Physical or Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection.

The regulations at 50 CFR 424.02 define “physical or biological features essential

to the conservation of the species” as the features that occur in specific areas and that are essential to support the life-history needs of the species. These include, but are not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic needed to support the life history of the species. In considering whether features are essential to the conservation of the species, the Service may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species.

The yellow lance is a sand-loving species (Alderman 2003, p. 6) often found buried deep in clean, coarse to medium sand and sometimes migrating with shifting sands (NatureServe 2015, p. 6), although it has also been found in gravel substrates. The species is dependent on clean (i.e., not polluted), moderately flowing water with high dissolved oxygen content in riverine or larger creek environments. Most freshwater mussels, including the yellow lance, are found in aggregations (mussel beds) that vary in size and are often separated by stream reaches in which mussels are absent or rare (Vaughn 2012, p. 983). Genetic exchange occurs between and among mussel beds via sperm drift, host fish movement, and movement of mussels during high flow events.

The yellow lance are omnivores that primarily filter feed on a wide variety of

microscopic particulate matter suspended in the water column, including phytoplankton, zooplankton, bacteria, detritus, and dissolved organic matter (Haag 2012, p. 26). Like most freshwater mussels, they have a unique life cycle that relies on fish hosts for successful reproduction. Yellow lance larvae (glochidia) are obligate parasites of the gills, heads, or fins of fish; primary host species are members of the Cyprinidae family, including the white shiner (*Luxilus albeolus*) and pinewoods shiner (*Lythrurus matutinus*).

A thorough review of the life history and ecology of the yellow lance is presented in the SSA report (Service 2018, entire). A summary of the resource needs of the yellow lance is in Table 1.

Table 1. Life history and resource needs of the yellow lance.

Life stage	Resources and/or circumstances needed for individuals to complete each life stage	Resource function (BFSD*)
Fertilized Eggs - early spring	<ul style="list-style-type: none"> • Clear, flowing water • Sexually mature males upstream from sexually mature females • Appropriate spawning temperatures • Presence of gravid females 	B
Glochidia - late spring to early summer	<ul style="list-style-type: none"> • Clear, flowing water • Just enough flow to attract drift feeding minnows • Presence of host fish for attachment 	B, D

Juveniles - excystment from host fish to ~35 mm shell length	<ul style="list-style-type: none"> • Clear, flowing water • Host fish dispersal • Appropriate interstitial chemistry <ul style="list-style-type: none"> - Low salinity (~0.9 ppt) - Low ammonia (~0.7 mg/L) - Low levels of copper and other contaminants - Dissolved oxygen >1.3 mg/L • Appropriate substrate for settlement • Adequate food availability 	F, S
Adult - >35 mm shell length	<ul style="list-style-type: none"> • Clear, flowing water • Appropriate substrate (silt-free gravel and stable, coarse sand) • Adequate food availability (phytoplankton and detritus) • High dissolved oxygen (>3 mg/L) • Water temperature <35 °C 	F, S

* B=breeding; F=feeding; S=sheltering; D=dispersal

Summary of Essential Physical or Biological Features

We have determined that the following physical or biological features are essential to the conservation of yellow lance:

(1) Suitable substrates and connected instream habitats, characterized by geomorphically stable stream channels and banks (i.e., channels that maintain lateral dimensions, longitudinal profiles, and sinuosity patterns over time without an aggrading or degrading bed elevation) with habitats that support a diversity of freshwater mussels and native fish (such as stable riffle-run-pool habitats that provide flow refuges consisting of silt-free gravel and coarse sand substrates).

(2) Adequate flows, or a hydrologic flow regime (which includes the severity, frequency, duration, and seasonality of discharge over time), necessary to maintain benthic habitats where the species is found and to maintain connectivity of streams with

the floodplain, allowing the exchange of nutrients and sediment for maintenance of the mussel's and fish host's habitat, food availability, spawning habitat for native fishes, and the ability for newly transformed juveniles to settle and become established in their habitats.

(3) Water and sediment quality (including, but not limited to, conductivity, hardness, turbidity, temperature, pH, ammonia, heavy metals, and chemical constituents) necessary to sustain natural physiological processes for normal behavior, growth, and viability of all life stages.

(4) The presence and abundance of fish hosts necessary for recruitment of the yellow lance.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of the yellow lance may require special management considerations or protections to reduce the following threats: (1) Urbanization of the landscape, including (but not limited to) land conversion for urban and commercial use, infrastructure (roads, bridges, utilities), and urban water uses (water supply reservoirs, wastewater treatment, etc.); (2) nutrient pollution from agricultural activities that impact water quantity and quality; (3) significant alteration of water quality; (4) improper forest management or silviculture activities that remove large areas of forested wetlands and riparian systems; (5) culvert and pipe installation that create barriers to movement; (6) impacts from invasive species;

(7) changes and shifts in seasonal precipitation patterns as a result of climate change; and
(8) other watershed and floodplain disturbances that release sediments or nutrients into the water.

Management activities that could ameliorate these threats include, but are not limited to: Use of best management practices (BMPs) designed to reduce sedimentation, erosion, and bank side destruction; protection of riparian corridors and retention of sufficient canopy cover along banks; moderation of surface and ground water withdrawals to maintain natural flow regimes; increased use of stormwater management and reduction of stormwater flows into the systems; and reduction of other watershed and floodplain disturbances that release sediments, pollutants, or nutrients into the water.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat.

The current distribution of the yellow lance is reduced from its historical distribution. We anticipate that recovery will require continued protection of existing populations and habitat, as well as ensuring there are adequate numbers of mussels in stable populations and that these populations occur over a wide geographic area. This strategy will help to ensure that catastrophic events, such as floods, which can cause

excessive sedimentation, nutrients, and debris to disrupt stream ecology, cannot simultaneously affect all known populations. Rangewide recovery considerations, such as maintaining existing genetic diversity and striving for representation of all major portions of the species' current range, were considered in formulating this proposed critical habitat designation.

Sources of data for this proposed critical habitat include multiple databases maintained by universities and State agencies for North Carolina, Virginia, and Maryland, and numerous survey reports on streams throughout the species' range. Other sources of available information on habitat requirements for this species include studies conducted at occupied sites and published in peer-reviewed articles, agency reports, and data collected during monitoring efforts (Service 2018, entire).

Areas Occupied at the Time of Listing

We identified stream channels that currently support populations of the yellow lance. In the SSA report, we define "current" as stream channels with observations of the species from 2005 to the present. Due to the breadth and intensity of survey effort done for freshwater mussels throughout the known range of the species, it is reasonable to assume that streams with no positive surveys since 2005 should not be considered occupied for the purpose of our analysis.

Specific habitat areas were delineated based on Natural Heritage Element Occurrences (EOs) following NatureServe's occurrence delineation protocol for freshwater mussels (NatureServe 2018, unpaginated). These EOs provide habitat for yellow lance subpopulations and are large enough to be self-sustaining over time, despite fluctuations in local conditions. The EOs contain stream reaches with interconnected

waters so that host fish containing yellow lance glochidia can move between areas, at least during certain flows or seasons. Based on this information, we consider the following streams in Maryland, Virginia, and North Carolina to be occupied by the species at the time of listing: Patuxent River, Rappahannock Subbasin (including the Rappahannock River, South Run, Carter Run, Thumb Run, Hungry Run, and Great Run), Rapidan Subbasin (including the Rapidan River, Blue Run, and Marsh Run), South Anna River, Johns Creek, Nottoway Subbasin (including the Nottoway River, Crooked Creek, and Sturgeon Creek), Tar River, Sandy/Swift Creek, Fishing Creek Subbasin (including Fishing Creek, Shocco Creek, and Richneck Creek), Swift Creek, and Little River (see unit descriptions under **Proposed Critical Habitat Designation**, below). The proposed critical habitat designation does not include all streams known to have been occupied by the species historically; instead, it includes only the currently occupied streams within the historical range that have also retained some or all of the physical or biological features that will allow for the maintenance and expansion of existing populations.

Areas Outside the Geographic Area Occupied at the Time of Listing

We are not proposing to designate any areas outside the geographical area currently occupied by the species because we did not find any unoccupied areas that were essential for the conservation of the species. The protection of stream segments within the seven currently existing populations (Patuxent, Rappahannock, York, James, Chowan, Tar, and Neuse), which are located across the physiographic representation of the range, would sufficiently reduce the risk of extinction. Improving the resiliency of populations in the currently occupied streams will increase viability to the point that the protections of the Act are no longer necessary.

General Information on the Maps of the Proposed Critical Habitat Designation

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Proposed Regulation Promulgation**. We include more detailed information on the boundaries of the critical habitat designation in the discussion of individual units below. We will make the coordinates or plot points or both on which each map is based available to the public at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2018–0094, at <http://www.fws.gov/southeast>, and at the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**, above).

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for yellow lance. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation under the Act with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

Proposed Critical Habitat Designation

We are proposing to designate approximately 319 river mi (514 km) in 11 units as critical habitat in North Carolina, Virginia, and Maryland for the yellow lance. All of the units were occupied by the species at the time of listing and contain all of the physical and biological features that are essential to support life-history processes of the species. These proposed critical habitat areas, described below, constitute our current best assessment of areas that meet the definition of critical habitat for the yellow lance. Table 2 shows the name, land ownership of the riparian areas surrounding the units, and approximate river miles of the proposed designated units for the yellow lance. Because all streambeds are navigable waters, the actual critical habitat units are all owned by the State in which they are located. The riparian land adjacent to the proposed critical habitat is 83% private lands, 11% conservation lands and easements, and 6% state lands.

Table 2. Proposed Critical Habitat Units for the Yellow Lance

Critical Habitat Unit	Riparian Ownership Surrounding Units	River Miles (Kilometers)
1. PR1 – Patuxent River	State; Private	10 (16)
2. RR1 – Rappahannock Subbasin	Private; Easements	44 (71)
3. RR2 – Rapidan Subbasin	Private; Easements	9 (14)
4. YR1 – South Anna River	Private; Easements	8 (13)
5. JR1 – Johns Creek	Private; George Washington and Jefferson National Forest	14 (23)
6. CR1 – Nottoway Subbasin	Private; Fort Pickett Military Reservation; Easements	41 (66)
7. TR1 – Tar River	Private; Easements	91 (146)
8. TR2 – Sandy/Swift Creek	Private; State; Easements	31 (50)
9. TR3 – Fishing Creek Subbasin	Private; State; Easements	37 (60)
10. NR1 – Swift Creek	Private; Easements	24 (39)
11. NR2 – Little River	Private; Easements	10 (16)
Total		319 (514)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all proposed units, and reasons why they meet the definition of critical habitat for yellow lance, below.

Patuxent Population

Unit 1: PR1 – Patuxent River

Unit 1 consists of approximately 10 river mi (16.1 km), including 3 mi (4.8 km) of the Patuxent River and 7 mi (11.3 km) of the Hawlings River, in Montgomery and Howard Counties, Maryland. The riparian land adjacent to Patuxent River is primarily located in Patuxent River State Park (90 percent), with some parcels privately owned (10 percent); the riparian land surrounding the Hawlings River is predominantly conservation parcels (97 percent) including State, county, and Maryland National Capital Parks Planning (MD NCPP) park land, and some privately owned parcels (3 percent).

Special management considerations or protection may be required to address excess nutrients, sediment, and pollutants that enter the rivers and serve as indicators of other forms of pollution such as bacteria and toxins, all of which reduce water quality for the species. Primary sources of these types of pollution result from urbanization and include wastewater, stormwater runoff, and fertilizers. Portions of the upper Patuxent River watershed were listed in 2011 as impaired for aquatic life and wildlife due to total suspended solids, and in 2014 due to chlorides and sulfates (MDE 2016, unpaginated). There are 146 non-major National Pollutant Discharge Elimination System (NPDES) discharges and three major (including Maryland City Water Reclamation Facility (WRF) and Bowie Wastewater Treatment Plant (WWTP)) NPDES discharges in the management unit. The Patuxent River is also fragmented by two water supply reservoirs, one with

dual use as a hydroelectric facility. Given the urban stormwater and nonpoint source pollution identified as contributing to water quality issues in this unit, special management considerations related to developed areas including riparian buffer restoration, reduced surface and groundwater withdrawals, stormwater retrofits, eliminating direct stormwater discharges, increasing open space in the watershed, and implementing highest levels of treatment of wastewater practicable will benefit the habitat in this unit.

Rappahannock Population

Unit 2: RR1 – Rappahannock Subbasin

Unit 2 consists of approximately 44 river mi (70.8 km) of Rappahannock Subbasin, including 1.7 mi (2.7 km) in Hungry Run, 7.9 mi (12.7 km) in Thumb Run, 5.9 mi (9.5 km) in South Run/Carter Run, 2.7 mi (4.3 km) in Great Run, and 25.8 mi (41.6 km) in Rappahannock River in Rappahannock, Fauquier, and Culpeper Counties, Virginia. The riparian land adjacent to this unit is primarily privately owned (72 percent), with some conservation parcels (28 percent).

Special management considerations or protection may be required to address excess nutrients, sediment, and pollutants that enter the river and serve as indicators of other forms of pollution such as bacteria and toxins, all of which impact water quality for the species. Sources of these types of pollution include wastewater, agricultural runoff, stormwater runoff, and septic systems. Approximately 77 miles (123.9 km) of the Rappahannock River watershed are impaired for aquatic life. Impairment is indicated by low benthic-macroinvertebrate bioassessment scores, pH and temperature issues, and *Escherichia coli* (*E. coli*); several of these can be attributed to septic systems or nonpoint

source runoff into streams. There are 93 non-major NPDES discharges and 11 major NPDES discharges, including several city and package WWTPs, within this unit. Special management considerations for riparian buffer restoration, agricultural BMPs, stormwater retrofits, maintenance of forested buffers, and implementing highest levels of treatment of wastewater practicable will benefit the habitat for the species in this unit.

Unit 3: RR2 – Rapidan Subbasin

Unit 3 consists of approximately 9 river mi (14.5 km) of Rapidan Subbasin, including 1.2 mi (1.9 km) in Marsh Run, 3.1 mi (5.0 km) in Blue Run, and 4.7 mi (7.6 km) in the Rapidan River in Madison and Orange Counties, Virginia. The riparian land adjacent to this unit is privately owned (57 percent) and conservation parcels (43 percent).

Special management considerations or protection may be required to address excess nutrients, sediment, and pollutants that enter the river and serve as indicators of other forms of pollution such as bacteria and toxins, all of which reduce water quality for the species (see discussion for Unit 2, above). Special management considerations for riparian buffer restoration, agricultural BMPs, stormwater retrofits, maintenance of forested buffers, and implementing highest levels of treatment of wastewater practicable will benefit the habitat for the species in this unit.

York Population

Unit 4: YR1 – South Anna River

Unit 4 consists of approximately 8 river mi (12.9 km) of the South Anna River in Louisa County, Virginia. The riparian land adjacent to this unit is primarily privately owned (92 percent), with some conservation parcels (8 percent).

Special management considerations or protection may be required to address excess nutrients, sediment, and pollutants that enter the river and serve as indicators of other forms of pollution such as bacteria and toxins, all of which impact water quality for the species. Sources of these types of pollution include wastewater, agricultural runoff, stormwater runoff, and septic systems. Based on 2012 data, 13 stream reaches, totaling approximately 44 miles (70.8 km), are impaired for aquatic life in the Po River and South Anna River watersheds. Impairment is indicated by low benthic-macroinvertebrate bioassessment scores, low dissolved oxygen, pH, and *E. coli*. There are 50 non-major NPDES discharges in the basin, and one major discharge, the Ashland WWTP. Special management considerations for riparian buffer restoration, agricultural BMPs, stormwater retrofits, maintenance of forested buffers, and implementing highest levels of treatment of wastewater practicable will benefit the habitat for the species in this unit.

James Population

Unit 5: JR1 – Johns Creek

Unit 5 consists of approximately 14 river mi (22.5 km) of the Johns Creek in Craig County, Virginia. The riparian land adjacent to this unit is primarily private, with some federally owned land as part of George Washington and Jefferson National Forest.

Special management considerations or protection may be required to address excess nutrients, sediment, and pollutants, which enter the creek and serve as indicators of other forms of pollution such as bacteria and toxins, all of which impact water quality for the species. Sources of these types of pollution are wastewater, agricultural runoff, and urban stormwater runoff. National Forest lands surround most of the Johns Creek watershed; protections and management of these lands will likely enable habitat

conditions (water quality, water quantity/flow, instream substrate, and connectivity) to remain high into the future (Service 2017, entire). Targeted species restoration in conjunction with current associated-species restoration efforts in Johns, Dicks, and Little Oregon Creeks within the Craig Creek Subbasin will likely improve the yellow lance's resiliency in these areas. Maintenance of forested buffer conditions is essential to retaining high-quality instream habitat in this unit.

Chowan Population

Unit 6: CR1 – Nottoway Subbasin

Unit 6 consists of approximately 41 river mi (66 km) of Nottoway Subbasin, including 1.4 mi (2.3 km) in Crooked Creek, 3.3 mi (5.3 km) in Sturgeon Creek, and 36.3 mi (58.4 km) in the Nottoway River in Nottoway, Lunenburg, Brunswick, and Dinwiddie Counties, Virginia. The proposed designation begins upstream of VA49 and ends at its confluence with Sturgeon Creek. The riparian land adjacent to this unit is primarily privately owned (64 percent), although Fort Pickett Military Reservation, which is exempted from this critical habitat designation, also has frontage on the Nottoway River (33 percent; see **Exemptions**, below), and there are some conservation parcels (3 percent).

Special management considerations or protection may be required within this unit to address a variety of threats. In the past decade, the Nottoway River suffered from several seasonal drought events, which not only caused low dissolved oxygen conditions but also decreased food delivery because of minimal flows. In addition, these conditions led to increased predation rates on potential host fishes that were concentrated into low-flow refugia (e.g., pools). Urban stormwater and nonpoint source pollution have been

identified as contributing to water quality issues in this unit. Additional threats to this system include oil and gas pipeline projects that propose to cross streams at locations where the species occurs. Special management considerations for riparian buffer restoration, reduced surface and groundwater withdrawals, and stormwater retrofits will benefit the habitat in this unit. Additional special management considerations or protection may be required within this unit to address low water levels as a result of water withdrawals and drought, as well as recommendation of alternate routes for oil and gas pipelines, or directional boring for those projects.

Tar Population

Unit 7: TR1 – Tar River

Unit 7 consists of approximately 91 river mi (146.5 km) of the Tar River, including 4.4 mi (7.1 km) in Ruin Creek, 11.9 mi (19.2 km) in Tabbs Creek, 6.8 mi (10.9 km) in Crooked Creek, and 67.9 mi (109.3 km) in the Tar River in Granville, Vance, Franklin, and Nash Counties, North Carolina. The riparian land adjacent to this unit is almost all privately owned (98 percent), with a few conservation parcels (2 percent).

Special management considerations or protection may be required within this unit to address a variety of threats. Excessive amounts of nitrogen and phosphorus run off the land, or are discharged, into the waters, causing excessive growth of vegetation and leading to extremely low levels of dissolved oxygen. Based on 2014 data, seven stream reaches totaling approximately 38 miles (61.1 km) are impaired in this basin. Indicators of impairment are low dissolved oxygen and low benthic-macroinvertebrate assessment scores, and the entire basin is classified as Nutrient Sensitive Waters (NCDEQ 2016, pp. 115–117). There are 102 non-major NPDES discharges, including several package

WWTPs and biosolids facilities, and 3 major NPDES discharges (Oxford WWTP, Louisburg WWTP, and Franklin County WWTP) in this unit; with expansion of these facilities, or addition of new wastewater discharges, an additional threat to habitat exists in this unit. Special management focused on agricultural BMPs, implementing highest levels of treatment of wastewater practicable, maintenance of forested buffers, and connection of protected riparian corridors will benefit habitat for the species in this unit.

Unit 8: TR2 – Sandy/Swift Creek

Unit 7 consists of approximately 31 river mi (50 km) of Sandy/Swift Creek in Vance, Warren, Halifax, Franklin, and Nash Counties, North Carolina. The riparian land adjacent to this unit is primarily privately owned (92 percent), with the rest in either conservation easements (2.5 percent) or State Game Land parcels (4.6 percent).

Special management considerations or protection may be required within this unit to address a variety of threats. Excessive amounts of nitrogen and phosphorus run off the land, or are discharged, into the waters, causing excessive growth of vegetation and leading to extremely low levels of dissolved oxygen; one stream reach totaling approximately 5 miles (8 km) is impaired in this unit. Special management focused on agricultural BMPs, maintenance of forested buffers, and connection of protected riparian corridors will benefit habitat for the species in this unit.

Unit 9: TR3 – Fishing Creek Subbasin

Unit 9 consists of approximately 37 river mi (59.5 km) of Fishing Creek Subbasin, including 1.6 mi (2.6 km) in Richneck Creek, 8.0 mi (12.9 km) in Shocco Creek, and 27.4 mi (44 km) in Fishing Creek in Vance, Warren, Halifax, Franklin, and Nash Counties, North Carolina. The riparian land adjacent to this unit is primarily in

private ownership (85 percent), with some State Game Land parcels (12 percent) and conservation easements (3 percent).

Special management considerations or protection may be required within this unit to address a variety of threats. Excessive amounts of nitrogen and phosphorus run off the land, or are discharged, into the waters, causing excessive growth of vegetation and leading to extremely low levels of dissolved oxygen. Special management focused on agricultural BMPs, maintenance of forested buffers, and connection of protected riparian corridors will benefit habitat for the species in this unit.

Neuse Population

Unit 10: NR1 – Swift Creek

Unit 10 consists of approximately 24 river mi (38.6 km) of the Swift Creek in Wake and Johnston Counties, North Carolina. The riparian land adjacent to this unit is almost entirely privately owned (99.5 percent), with one conservation parcel (0.5 percent).

Special management considerations or protection may be required within this unit to address a variety of threats. Large quantities of nutrients (especially nitrogen) contributed by fertilizers and animal waste washed from lawns, urban developed areas, and farm fields are impacting aquatic ecosystems in this unit. There are several permitted point source discharges of wastewater. Development is also impacting several areas along Swift Creek.

All of Swift Creek is rated “impaired” by the North Carolina Division of Water Resources. Many factors contribute to this designation, including low benthic-macroinvertebrate assessment scores, low pH, poor fish community scores, low dissolved

oxygen, polychlorinated biphenyls, copper, and zinc. Many non-major and one major (Dempsey Benton Water Treatment Plant) permitted discharges occur in this unit. Special management related to developed areas, including using the best available wastewater treatment technologies, retrofitting stormwater systems, eliminating direct stormwater discharges, increasing open space in the watershed, and maintaining connected riparian corridors, will be important to maintain habitat in this unit.

Unit 11: NR2 – Little River

Unit 11 consists of approximately 10 river mi (16.1 km) of the Little River in Johnston County, North Carolina. The riparian land adjacent to this unit is almost entirely privately owned (99.5 percent), with one conservation parcel (0.5 percent).

Special management considerations or protection may be required within this unit to address a variety of threats. Four stream reaches totaling approximately 17 miles are impaired in the Little River. The designation of impairment is based primarily on low benthic-macroinvertebrate assessment scores, low pH, and low dissolved oxygen. There are 32 non-major and no major NPDES discharges in this unit. Special management considerations in this unit include retrofitting stormwater systems, eliminating direct stormwater discharges, increasing and protecting existing open space, and maintaining connected riparian corridors.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as an endangered or threatened species and with respect to its critical habitat, if any is designated. Section 7(a)(2) of the Act

requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

We published a final regulation with a revised definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 et seq.) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal agency actions within the species' habitat that may require conference or consultation or both include management and any other landscape-altering activities on Federal lands administered by the Service, Army National Guard, U.S. Forest Service, and National Park Service; issuance of section 404 Clean Water Act permits by the U.S. Army Corps of Engineers;

and construction and maintenance of roads or highways by the Federal Highway Administration. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency, do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2), is documented through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, subsequent to the previous consultation, we have listed a new species or designated critical habitat that may be affected by the Federal action, or the action has been modified in a manner that affects the species or critical habitat in a way not considered in the previous consultation. In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but the regulations also specify some exceptions to the requirement to reinitiate consultation on specific land management plans after subsequently listing a new species or designating new critical habitat. See the regulations for a description of those exceptions.

Application of the "Adverse Modification" Standard

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat as a whole for the conservation of the listed species. As discussed above, the role

of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate 7(a)(2) of the Act by destroying or adversely modifying such designation, or that may be affected by such designation.

Activities that the Services may, during a consultation under section 7(a)(2) of the Act, find are likely to destroy or adversely modify critical habitat include, but are not limited to:

(1) Actions that would alter the minimum flow or the existing flow regime. Such activities could include, but are not limited to, impoundment, channelization, water diversion, water withdrawal, and hydropower generation. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of the yellow lance and/or its fish host by decreasing or altering flows to levels that would adversely affect their ability to complete their life cycles.

(2) Actions that would significantly alter water chemistry or temperature. Such activities could include, but are not limited to, release of chemicals (including pharmaceuticals, metals, and salts), biological pollutants, or heated effluents into the surface water or connected groundwater at a point source or by dispersed release (non-point source). These activities could alter water conditions to levels that are beyond the tolerances of the yellow lance and/or its fish host and result in direct or cumulative adverse effects to these individuals and their life cycles.

(3) Actions that would significantly increase sediment deposition within the stream channel. Such activities could include, but are not limited to, excessive sedimentation from livestock grazing, road construction, channel alteration, timber harvest, off-road vehicle use, and other watershed and floodplain disturbances. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of the mussel and/or its fish host by increasing the sediment deposition to levels that would adversely affect their ability to complete their life cycles.

(4) Actions that would significantly increase the filamentous algal community within the stream channel. Such activities could include, but are not limited to, release of nutrients into the surface water or connected groundwater at a point source or by dispersed release (non-point source). These activities can result in excessive filamentous algae filling streams and reducing habitat for the yellow lance and/or its fish host, degrading water quality during algal decay, and decreasing oxygen levels at night from algal respiration to levels below the tolerances of the mussel and/or its fish host. Algae can also directly compete with mussel offspring by covering the sediment that prevents the glochidia from settling into the sediment.

(5) Actions that would significantly alter channel morphology or geometry. Such activities could include, but are not limited to, channelization, impoundment, road and bridge construction, mining, dredging, and destruction of riparian vegetation. These activities may lead to changes in water flows and levels that would degrade or eliminate the mussel, its fish host, and/or their habitats. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the mussel and/or its fish host.

(6) Actions that result in the introduction, spread, or augmentation of nonnative aquatic species in occupied stream segments, or in stream segments that are hydrologically connected to occupied stream segments, even if those segments are occasionally intermittent, or introduction of other species that compete with or prey on the yellow lance. Possible actions could include, but are not limited to, stocking of nonnative fishes, stocking of sport fish, or other related actions. These activities can introduce parasites or disease to fish hosts; result in direct predation; or affect the growth, reproduction, and survival of yellow lance.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- (1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- (2) A statement of goals and priorities;
- (3) A detailed description of management actions to be implemented to provide for these ecological needs; and
- (4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the proposed critical habitat designation for yellow lance to determine if they meet the criteria for exemption from critical habitat under section 4(a)(3) of the Act.

We have identified one area within the proposed critical habitat designation that consists of Department of Defense lands with a completed, Service-approved INRMP. The Army National Guard—Maneuver Training Center Fort Pickett (Fort Pickett) is located on 41,000 acres in three counties in southeastern Virginia: Nottoway, Brunswick, and Dinwiddie. Fort Pickett is on federally owned land and is managed by the Virginia Army National Guard and is subject to all federal laws and regulations. The Fort Pickett

INRMP covers fiscal years 2017–2021, and serves as the principal management plan governing all natural resource activities on the installation. Among the goals and objectives listed in the INRMP is habitat management for rare, threatened, and endangered species, and the yellow lance is included in this plan. Management actions and elements that will benefit the yellow lance and its habitat include managing soil erosion and sedimentation; maintaining and improving riparian, forest, and stream habitats; enforcing stream and wetland protection zones; improving water quality; and conducting public outreach and education.

Fourteen miles (22.5 km) of Unit 6 (CR1 – Nottoway Subbasin) are located within the area covered by this INRMP. Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified streams are subject to the INRMP and that conservation efforts identified in the INRMP will provide a benefit to the yellow lance. Therefore, streams within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 14 river miles (22.5 river km) of habitat in this proposed critical habitat designation because of this exemption.

Consideration of Impacts under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based

on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factors to use and how much weight to give to any factor.

As discussed below, we are not proposing to exclude any areas from critical habitat. However, the final decision on whether to exclude any areas will be based on the best scientific data available at the time of the final designation, including information obtained during the comment period and information about the economic impact of designation.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate whether a specific critical habitat designation may restrict or modify specific land uses or activities for the benefit of the species and its habitat within the areas proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.” The “without critical habitat” scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by

the designation of critical habitat (e.g., under the Federal listing as well as other Federal, State, and local regulations). The baseline, therefore, represents the costs of all efforts attributable to the listing of the species under the Act (i.e., conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

For this proposed designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the yellow lance (IEc 2018, entire). The purpose of the screening analysis is to filter out the geographic areas in which the critical habitat designation is unlikely to result in probable incremental economic impacts. In particular, the screening analysis considers baseline costs (i.e., absent critical habitat designation) and includes probable economic impacts where land and water use may be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. The screening analysis filters out

particular areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. Ultimately, the screening analysis allows us to focus our analysis the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation. The screening analysis also assesses whether units are unoccupied by the species and may require additional management or conservation efforts as a result of the critical habitat designation for the species which may incur incremental economic impacts. This screening analysis, combined with the information contained in our IEM, constitutes our draft economic analysis of the proposed critical habitat designation for the yellow lance (DEA), which is summarized in the narrative below.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the yellow lance, first we identified, in the IEM dated August 2, 2018, probable incremental economic impacts associated with the following categories of activities: (1) Federal lands management (U.S. Forest Service, Department of Defense); (2) agriculture; (3)

forest management/silviculture/timber; (4) development; (5) recreation; (6) restoration activities; and (7) transportation. Additionally, we considered whether the activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the yellow lance is present, Federal agencies already are required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If we finalize this proposed critical habitat designation, consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process.

In our IEM, we attempted to clarify the distinction between the effects that will result from the species being listed and those attributable to the critical habitat designation (i.e., difference between the jeopardy and adverse modification standards) for the yellow lance. We used the following to help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would result in sufficient harm or harassment to constitute jeopardy to the yellow lance would also likely adversely affect the essential physical or biological features of critical habitat. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation.

The proposed critical habitat designation for the yellow lance totals approximately 319 river mi (514 km) in 11 units as critical habitat in North Carolina, Virginia, and Maryland, all of which is occupied by the species. In these areas, any actions that may affect the species would also affect proposed critical habitat, and it is unlikely that any additional conservation efforts would be recommended to address the adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of the yellow lance. Therefore, even though some analysis of the impacts of the action of critical habitat may be necessary, and this additional analysis will require costs in time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant. We do not expect any additional consultations resulting from the designation of critical habitat. The total annual incremental costs of critical habitat designation are anticipated to be the additional resources expended in a maximum of 102 section 7 consultations annually at a cost of less than \$240,000 per year. Accordingly, we believe that, in most circumstances, these costs would not reach the threshold of “significant” under E.O. 12866.

As we stated earlier, we are soliciting data and comments from the public on the DEA, as well as all aspects of the proposed rule and our required determinations. See **ADDRESSES**, above, for information on where to send comments.

Exclusions

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. As discussed above, we prepared an analysis of the probable economic impacts of the proposed critical habitat designation and related factors. Based on this analysis, the Secretary does not propose to exercise his discretion to exclude any areas from the final designation based on economic impacts. However, during the development of a final designation, we will consider any additional economic impact information we receive during the public comment period, which may result in areas being excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts or Homeland Security Impacts

Under section 4(b)(2) of the Act, we also consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this proposal, we have determined that, other than the land exempted under section 4(a)(3)(B)(i) of the Act based upon the existence of an approved INRMP (see **Exemptions**, above), the lands within the proposed designation of critical habitat for the yellow lance are not owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national security. Consequently, the Secretary does not propose to exercise his discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors including whether there are permitted conservation plans covering the species in the area such as habitat conservation plans (HCPs), safe harbor agreements, or candidate conservation agreements with assurances, or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at the existence of tribal conservation plans and partnerships, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposal, we have determined that there are currently no HCPs or other management plans for yellow lance, and the proposed designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this proposed critical habitat designation.

During the development of a final designation, we will consider any information currently available or received during the public comment period regarding the economic, national security, or other relevant impacts of the proposed designation and will determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Executive Order 13771

This proposed rule is not an E.O. 13771 ("Reducing Regulation and Controlling Regulatory Costs") (82 FR 9339, February 3, 2017) regulatory action because this proposed rule is not significant under E.O. 12866.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any

proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and therefore, not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that, if made final as proposed, this proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final as proposed, this proposed critical habitat designation will not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. In our economic analysis, we did not find that the designation of this proposed critical habitat would significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This proposed rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)-(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack

authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule would significantly or uniquely affect small governments because the lands being proposed for critical habitat designation are owned by the States of North Carolina, Virginia, and Maryland. These government entities do

not fit the definition of “small governmental jurisdiction.” Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for yellow lance in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed and concludes that, if adopted, this designation of critical habitat for yellow lance does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this proposed critical

habitat designation with, appropriate State resource agencies in Maryland, Virginia, and North Carolina. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the elements of physical or biological features essential to the conservation of the species. The proposed areas of designated critical habitat are presented on maps, and the proposed rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA, 42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to NEPA in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth

Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. As discussed above (see **Exclusions**), we have determined that no tribal lands would be affected by this designation.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;

- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Authors

The primary authors of this proposed rule are the staff members of the U.S. Fish and Wildlife Service Species Assessment Team and Raleigh Ecological Services Field Office.

References Cited

A complete list of references cited in this proposed rule is available on the Internet at <http://www.regulations.gov> and upon request from the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361-1407; 1531-1544; and 4201-4245, unless otherwise noted.

2. Amend § 17.11(h) by revising the entry for “Lance, yellow” under CLAMS in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where Listed	Status	Listing Citations and Applicable Rules
* * * * *				
CLAMS				
* * * * *				
Lance, yellow	<i>Elliptio lanceolata</i>	Wherever found	T	83 FR 14189, 4/3/2018; 50 CFR 17.95(f). ^{CH}
* * * * *				

3. Amend § 17.95(f) by adding, immediately following the entry for “Rabbitsfoot (*Quadrula cylindrica cylindrica*),” an entry for “Yellow Lance (*Elliptio lanceolata*)” to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(f) *Clams and Snails.*

* * * * *

Yellow Lance (*Elliptio lanceolata*)

(1) Critical habitat units are depicted for Franklin, Granville, Halifax, Johnston, Nash, Vance, Wake, and Warren Counties, North Carolina; Brunswick, Craig, Culpeper,

Dinwiddie, Fauquier, Louisa, Lunenburg, Madison, Nottoway, Orange, and Rappahannock Counties, Virginia; and Howard and Montgomery Counties, Maryland, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of yellow lance consist of the following components:

(i) Suitable substrates and connected instream habitats, characterized by geomorphically stable stream channels and banks (i.e., channels that maintain lateral dimensions, longitudinal profiles, and sinuosity patterns over time without an aggrading or degrading bed elevation) with habitats that support a diversity of freshwater mussel and native fish (such as stable riffle-run-pool habitats that provide flow refuges consisting of silt-free gravel and coarse sand substrates).

(ii) Adequate flows, or a hydrologic flow regime (which includes the severity, frequency, duration, and seasonality of discharge over time), necessary to maintain benthic habitats where the species is found and to maintain connectivity of streams with the floodplain, allowing the exchange of nutrients and sediment for maintenance of the mussel's and fish host's habitat, food availability, spawning habitat for native fishes, and the ability for newly transformed juveniles to settle and become established in their habitats.

(iii) Water and sediment quality (including, but not limited to, conductivity, hardness, turbidity, temperature, pH, ammonia, heavy metals, and chemical constituents) necessary to sustain natural physiological processes for normal behavior, growth, and viability of all life stages.

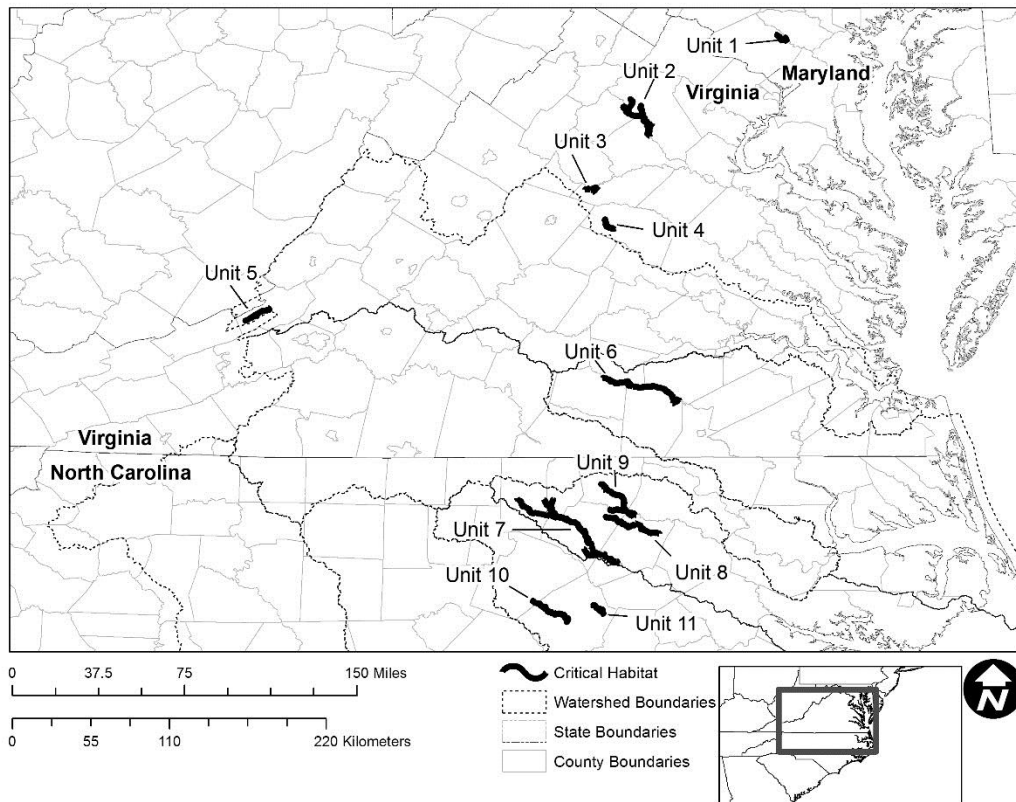
(iv) The presence and abundance of fish hosts necessary for recruitment of the yellow lance.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat map units.* Data layers defining map units were created by overlaying Natural Heritage Element Occurrence data and U.S. Geological Survey (USGS) hydrologic data for stream reaches. The hydrologic data used in the critical habitat maps were extracted from the USGS 1:1M scale nationwide hydrologic layer (https://nationalmap.gov/small_scale/mld/Inethyd.html) with a projection of EPSG:4269–NAD83 Geographic. The North Carolina, Virginia, and Maryland Natural Heritage program species presence data were used to select specific stream segments for inclusion in the critical habitat layer. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2018–0094 and at the Raleigh Ecological Services Field Office. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) *Note:* Index map follows:

Index Map of Critical Habitat Units for Yellow Lance

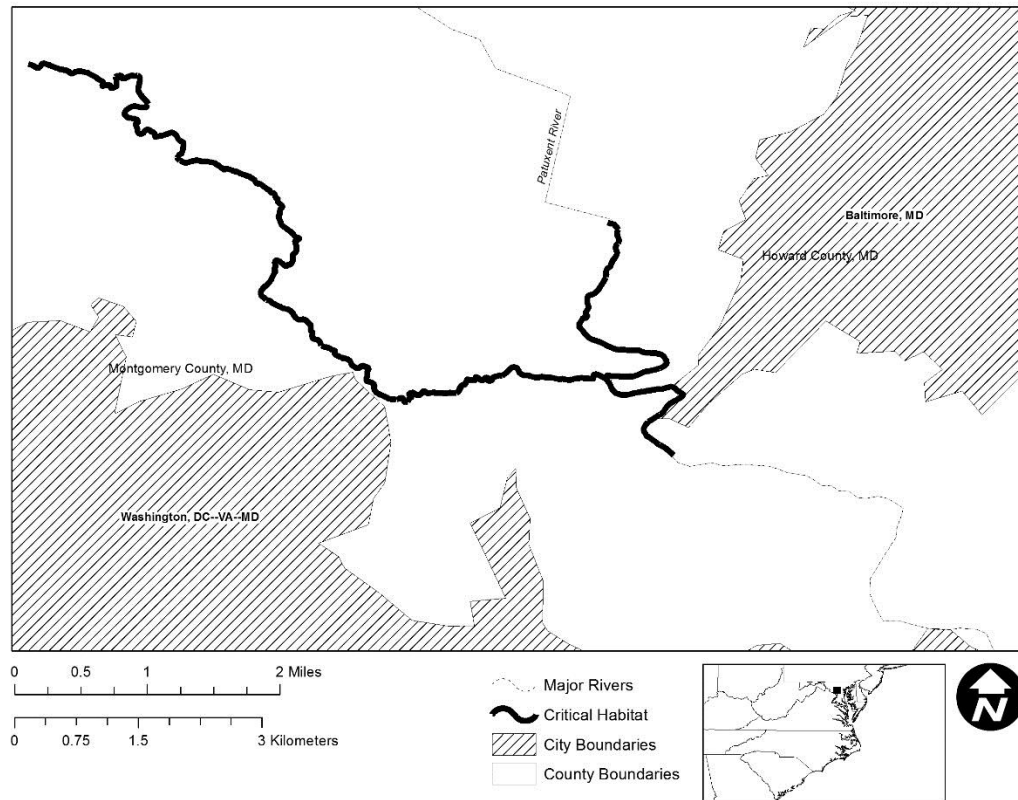


(6) Unit 1: PR1 – Patuxent River, Montgomery and Howard Counties, Maryland.

(i) This unit consists of approximately 10 river miles (16.1 kilometers (km)) of occupied habitat, including 3 mi (4.8 km) of the Patuxent River and 7 mi (11.3 km) of the Hawlings River. Unit 1 includes stream habitat up to bank full height.

(ii) Map of Unit 1 follows:

Map of Unit 1 - Patuxent River Critical Habitat Unit for Yellow Lance

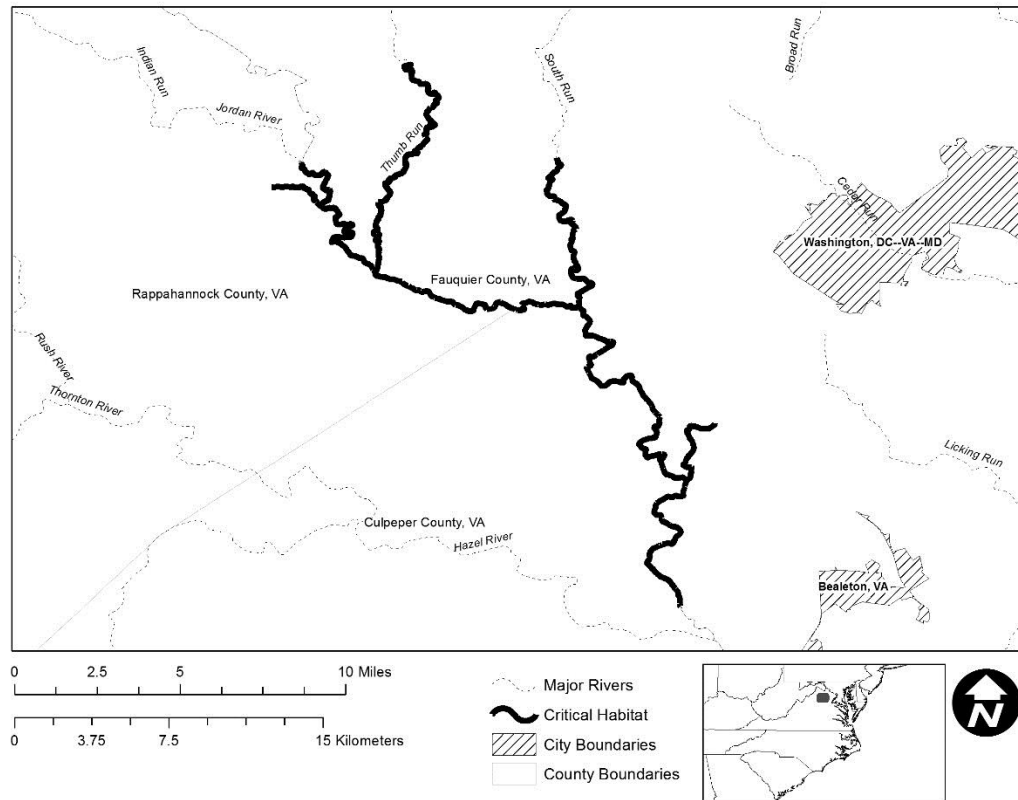


(7) Unit 2: RR1 – Rappahannock Subbasin, Rappahannock, Fauquier, and Culpeper Counties, Virginia.

(i) This unit consists of approximately 44 river miles (70.8 km) of occupied habitat in the Rappahannock Subbasin, including 1.7 miles (2.7 km) in Hungry Run, 7.9 miles (12.7 km) in Thumb Run, 5.9 miles (9.5 km) in South Run/Carter Run, 2.7 miles (4.3 km) in Great Run, and 25.8 miles (41.6 km) in Rappahannock River. Unit 2 includes stream habitat up to bank full height.

(ii) Map of Unit 2 follows:

Map of Unit 2 - Rappahannock Subbasin Critical Habitat Unit for Yellow Lance

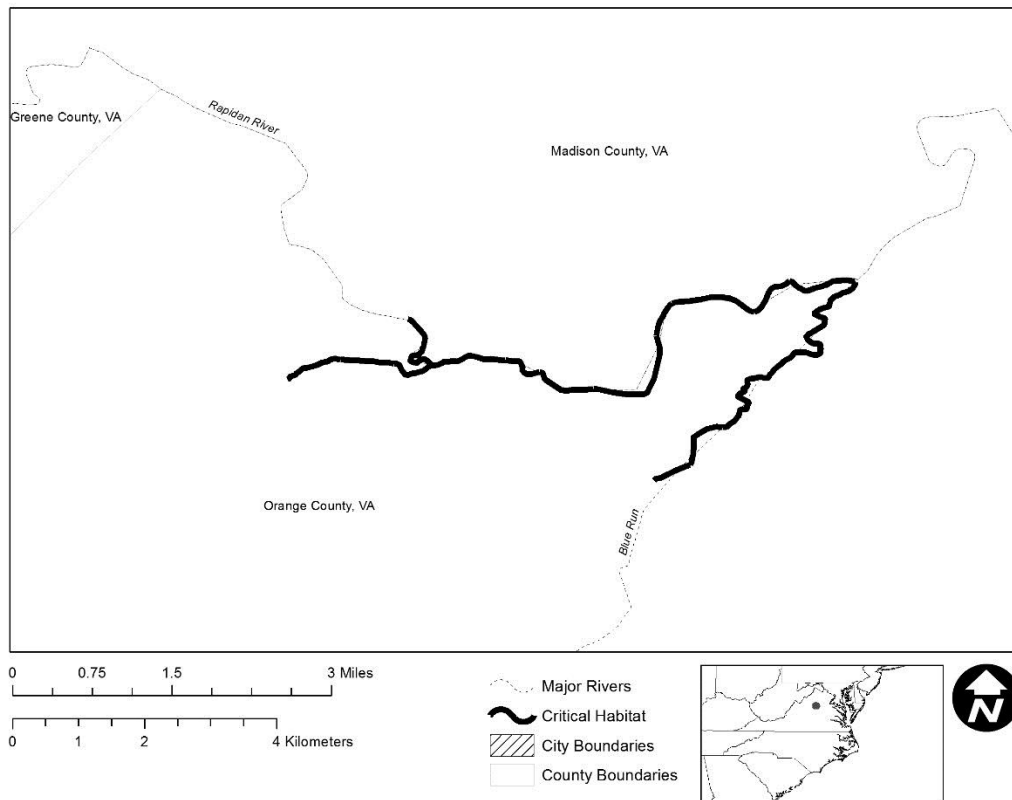


(8) Unit 3: RR2 – Rapidan Subbasin, Madison and Orange Counties, Virginia.

(i) This unit consists of 9 river miles (14.5 km) of occupied habitat in the Rapidan Subbasin, including 1.2 miles (1.9 km) in Marsh Run, 3.1 miles (5.0 km) in Blue Run, and 4.7 miles (7.6 km) in the Rapidan River. Unit 3 includes stream habitat up to bank full height.

(ii) Map of Unit 3 follows:

Map of Unit 3 - Rapidan Subbasin Critical Habitat Unit for Yellow Lance

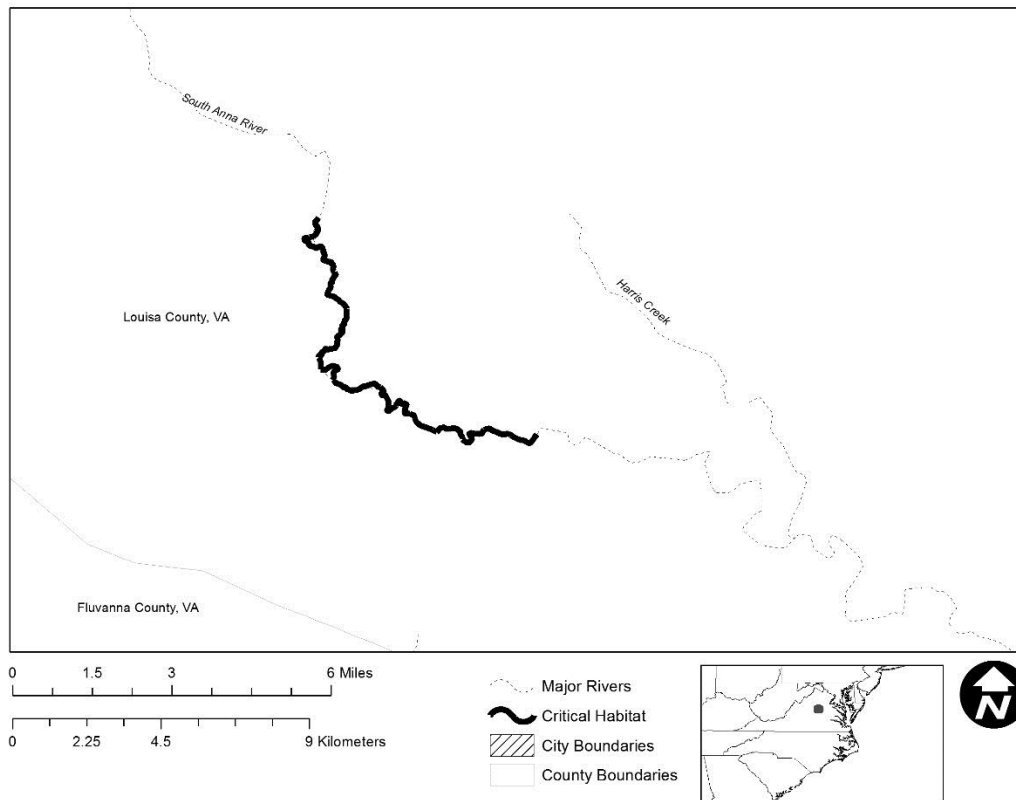


(9) Unit 4: YR1 – South Anna River, Louisa County, Virginia.

(i) This unit consists of approximately 8 river miles (12.9 km) of occupied habitat in the South Anna River. Unit 4 includes stream habitat up to bank full height.

(ii) Map of Unit 4 follows:

Map of Unit 4 - South Anna River Critical Habitat Unit for Yellow Lance

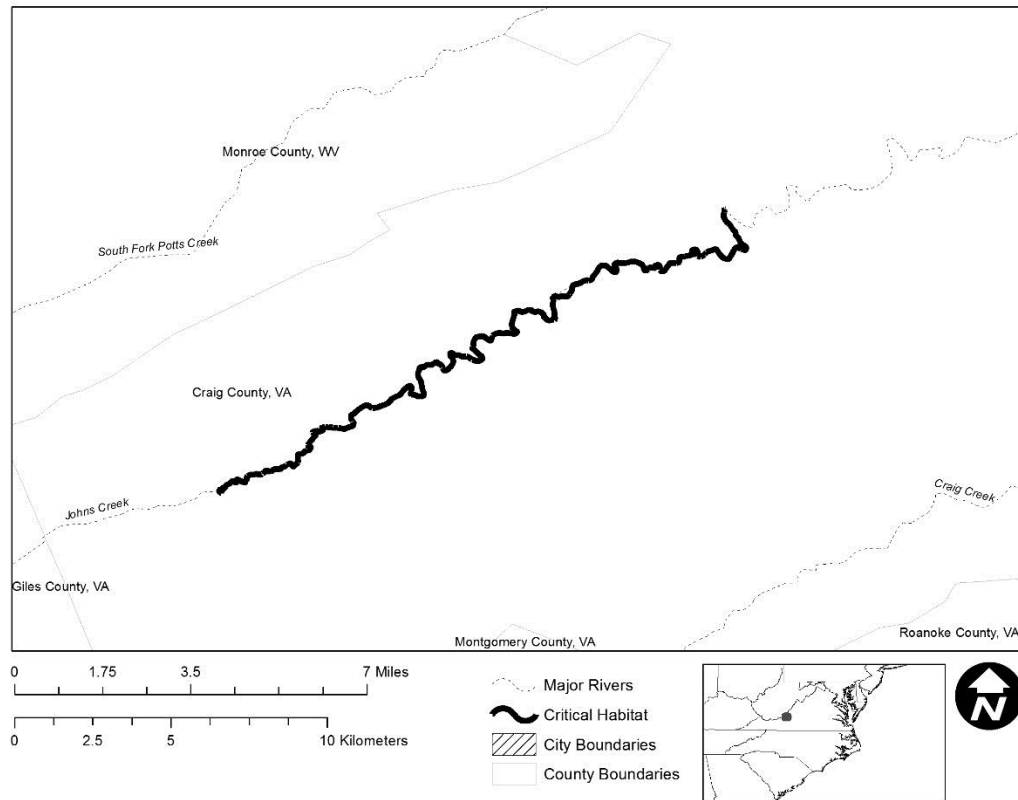


(10) Unit 5: JR1 – Johns Creek, Craig County, Virginia.

(i) This unit consists of approximately 14 river miles (22.5 km) of occupied habitat in the Johns Creek. Unit 5 includes stream habitat up to bank full height.

(ii) Map of Unit 5 follows:

Map of Unit 5 - Johns Creek Critical Habitat Unit for Yellow Lance

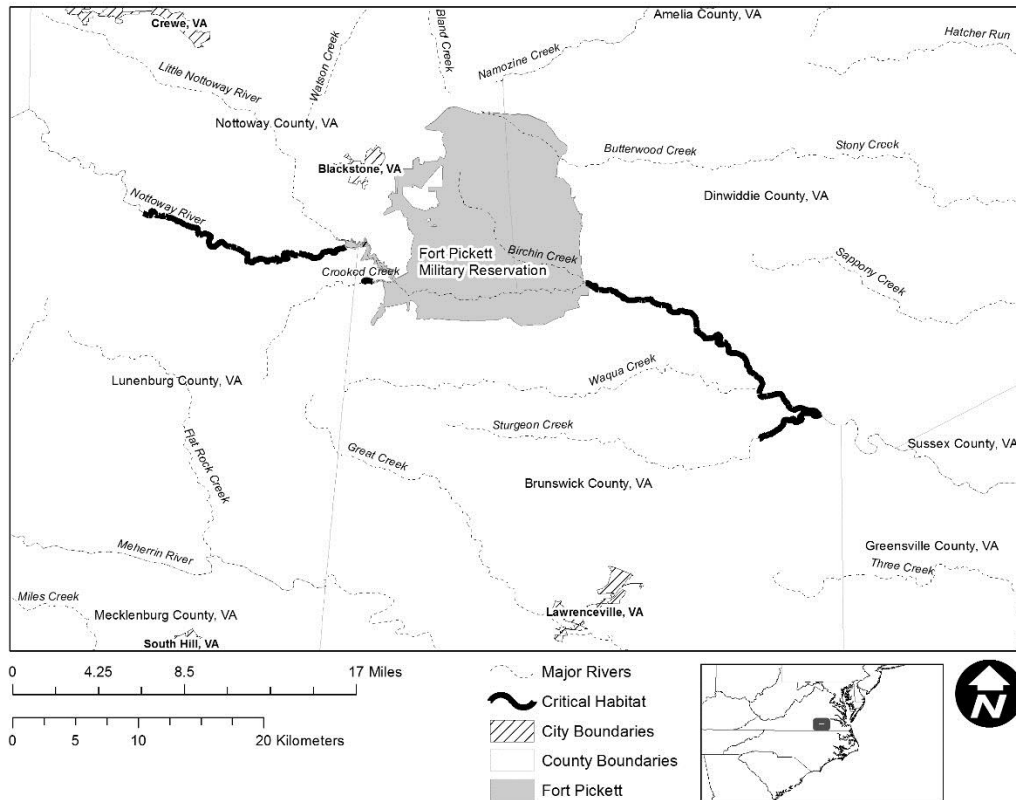


(11) Unit 6: CR1 – Nottoway Subbasin, Nottoway, Lunenburg, Brunswick, and Dinwiddie Counties, Virginia.

(i) This unit consists of approximately 41 river miles (66 km) of occupied habitat in the Nottoway Subbasin, including 1.4 miles (2.3 km) in Crooked Creek, 3.3 miles (5.3 km) in Sturgeon Creek, and 36.3 miles (58.4 km) in the Nottoway River. Unit 6 includes stream habitat up to bank full height.

(ii) Map of Unit 6 follows:

Map of Unit 6 - Nottoway Subbasin Critical Habitat Unit for Yellow Lance

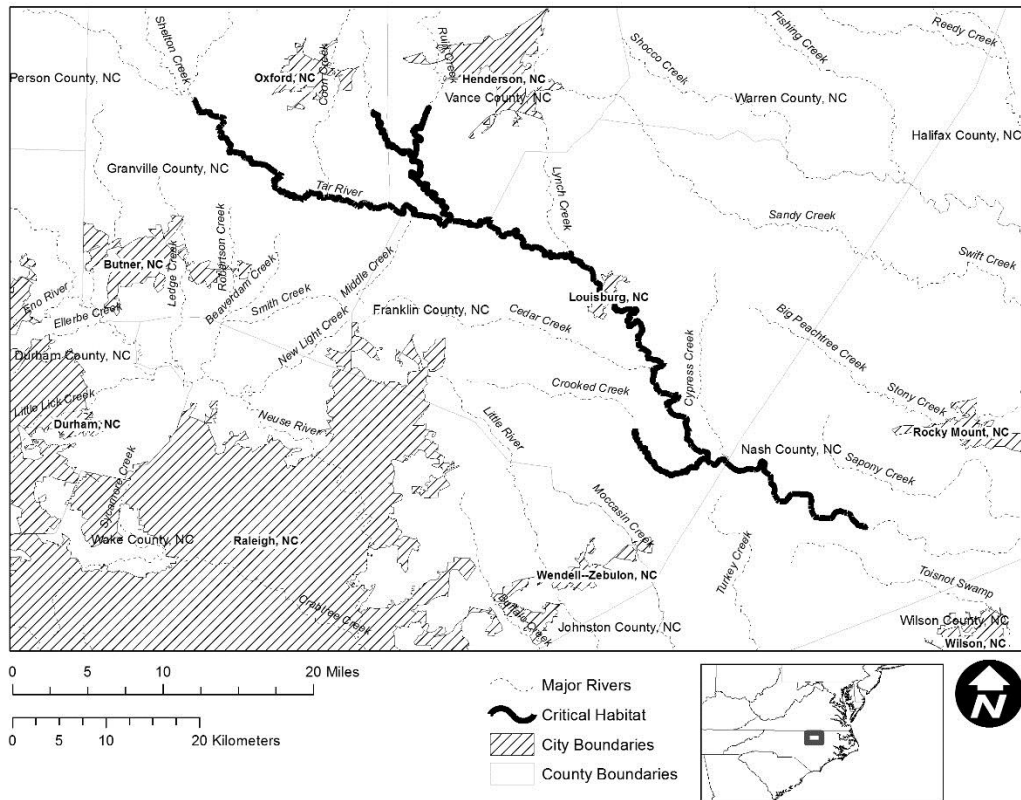


(12) Unit 7: TR1 – Tar River, Granville, Vance, Franklin, and Nash Counties, North Carolina.

(i) This unit consists of approximately 91 river miles (146.5 km) of occupied habitat in the Tar River, including 4.4 miles (7.1 km) in Ruin Creek, 11.9 miles (19.2 km) in Tabbs Creek, 6.8 miles (10.9 km) in Crooked Creek, and 67.9 miles (109.3 km) in the Tar River. Unit 7 includes stream habitat up to bank full height.

(ii) Map of Unit 7 follows:

Map of Unit 7 -Tar River Critical Habitat Unit for Yellow Lance

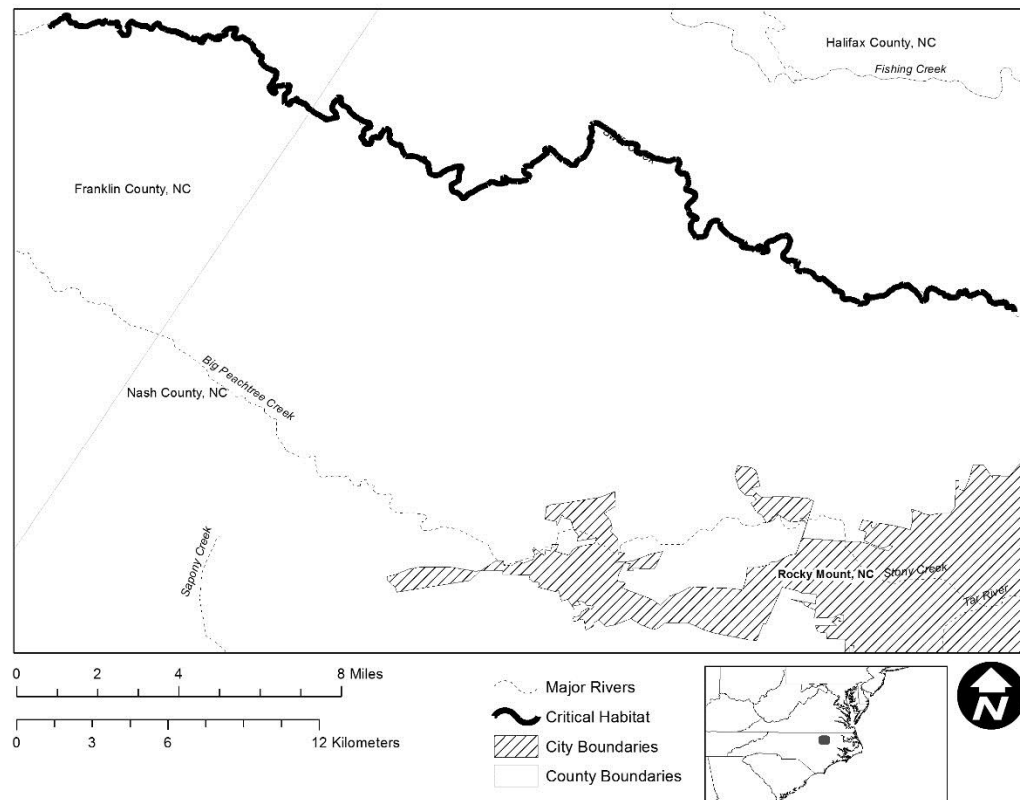


(13) Unit 8: TR2 – Sandy/Swift Creek, Vance, Warren, Halifax, Franklin, and Nash Counties, North Carolina.

(i) This unit consists of 31 river miles (50 km) of occupied habitat in the Sandy and Swift Creeks. Unit 8 includes stream habitat up to bank full height.

(ii) Map of Unit 8 follows:

Map of Unit 8 - Sandy/Swift Creek Critical Habitat Unit for Yellow Lance

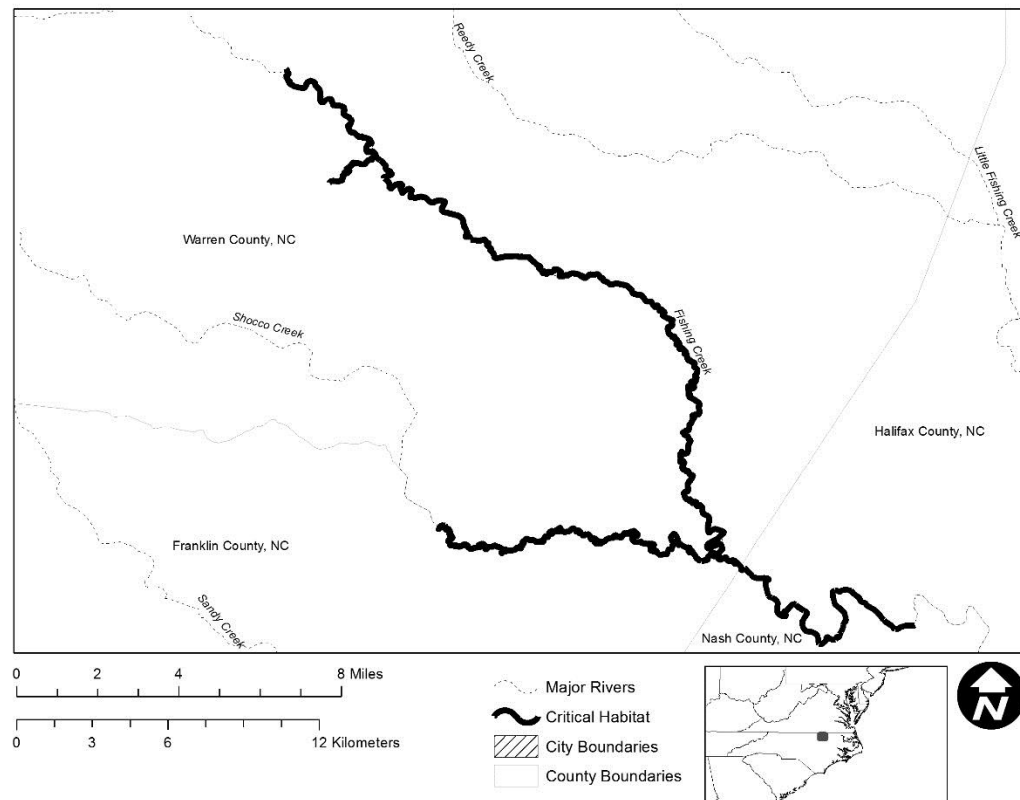


(14) Unit 9: TR3 – Fishing Creek Subbasin, Vance, Warren, Halifax, Franklin, and Nash Counties, North Carolina.

(i) This unit consists of approximately 37 river miles (59.5 km) of occupied habitat in the Fishing Creek Subbasin, including 1.6 miles (2.6 km) in Richneck Creek, 8.0 miles (12.9 km) in Shocco Creek, and 27.4 miles (44 km) in Fishing Creek. Unit 9 includes stream habitat up to bank full height.

(ii) Map of Unit 9 follows:

Map of Unit 9 - Fishing Creek Subbasin Critical Habitat Unit for Yellow Lance

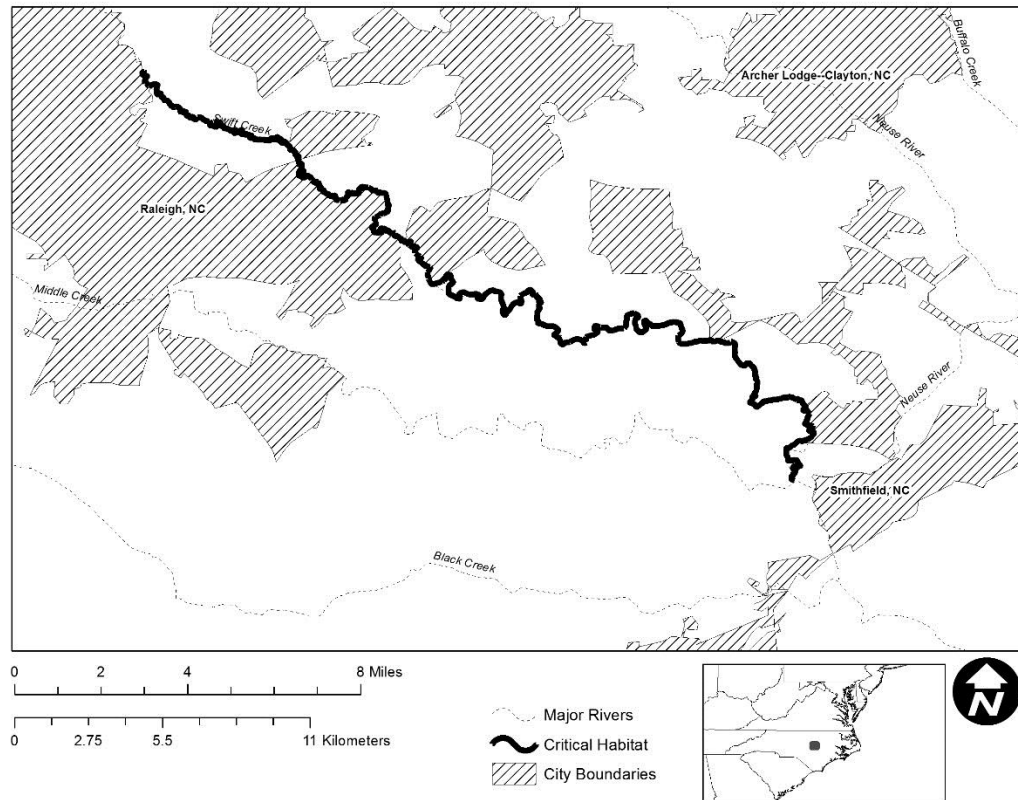


(15) Unit 10: NR1 – Swift Creek, Wake and Johnston Counties, North Carolina.

(i) This unit consists of approximately 24 river miles (38.6 km) of occupied habitat in the Swift Creek. Unit 10 includes stream habitat up to bank full height.

(ii) Map of Unit 10 follows:

Map of Unit 10 - Swift Creek Critical Habitat Unit for Yellow Lance

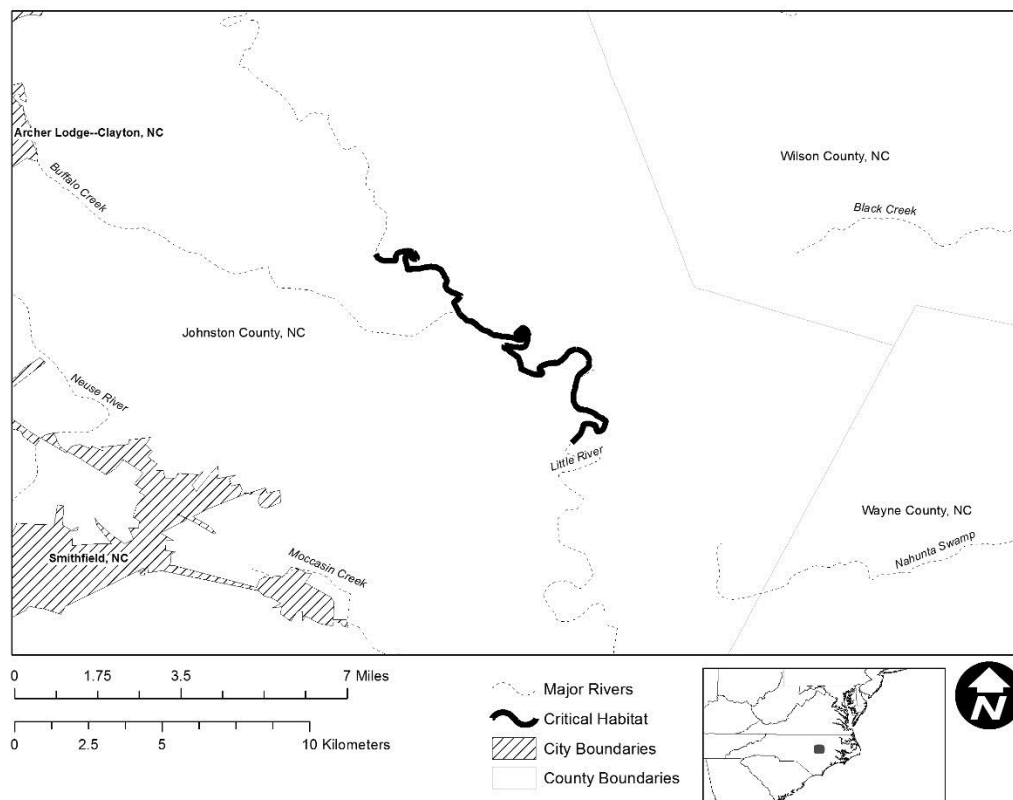


(16) Unit 11: NR2 – Little River, Johnston County, North Carolina.

(i) This unit consists of approximately 10 river miles (16.1 km) of occupied habitat in the Little River. Unit 11 includes stream habitat up to bank full height.

(ii) Map of Unit 11 follows:

Map of Unit 11 - Little River Critical Habitat Unit for Yellow Lance



* * * * *

Dated: November 26, 2019

Signed:

Margaret E. Everson
*Principal Deputy Director,
 U.S. Fish and Wildlife Service,
 Exercising the Authority of the Director,
 U.S. Fish and Wildlife Service.*

Billing Code 4333-15

[FR Doc. 2020-02294 Filed: 2/5/2020 8:45 am; Publication Date: 2/6/2020]